DOCUMENT RESUME

ED 338 836 CE 059 526

TITLE	Crop Producer. Ohio's Competency Analysis Profile.
INSTITUTION	Ohio State Univ., Columbus. Vocational Instructional Materials Lab.
SPONS AGENCY	Ohio State Dept. of Education, Columbus. Div. of Vocational and Career Education.
PUB DATE	91
NOTE	37p.; For related documents, see CE 059 517-542.
AVAILABLE FROM	Vocational Instructional Materials Lab, Ohio State University, 1900 Kenny Road, Columbus, OH 43210-1090 ($1.50).
PUB TYPE	Guides - Classroom Use - Teaching Guides (For Teacher) (052)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Agribusiness; Agricultural Education; Agricultural Engineering; *Agricultural Production; Agriculture; Business Administration; Competence; *Competency Based Education; Employment Potential; Entry Workers; Farmers; Farm Management; *Field Crops; High Schools; Job Analysis; *Job Skills; Marketing; Occupational Safety and Health; Promotion (Occupational); Statewide Planning; Task Analysis; Vocational Education
IDENTIFIERS	DACUM Process; Ohio

ABSTRACT

This comprehensive and verified employer competency list was developed from a modified DACUM (Developing a Curriculum) process involving business, industry, labor, and community agency representatives from Ohio. This competency list contains six units (with or without subunits), competencies, and competency builders that identify the occupational, academic, and employability skills needed to enter the agricultural business as a crop producer. Within the outline are three levels of items: core (required, the basis for state vocational competency tests); advancing (needed to advance in an occupation); and futuring (needed to enter and remain in a given occupation 3 to 4 years from now). The units cover the following: (1) general safety precautions; (2) crop production; (3) agricultural mechanics; (4) business management; (5) marketing; and (6) employability skills. (KC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED338836

OCAP

OHIO'S COMPETENCY ANALYSIS PROFILE

CROP PRODUCER

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Employer Verification Panel

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Don Arnett, *Independent Crop Producer,* Laura, Ohio

David K. Cunningham, *Cunningham Farms,* Waterford, Ohio

Clyde Harrold, *Independent Crop Producer,* Ada, Ohio

Fred Lichtensteiger, *Independent Crop Producer,* Ohio City, Ohio

James Needs, *Independent Crop Producer,* Upper Sandusky, Ohio

Lonnie G. O'Diam, *Independent Crop Producer,* Farmersville, Ohio

Kris A. Perry, *Tolene Farms,* Clyde, Ohio

Mahlon C. Schmucker, *Schmucker Farms,* Wooster, Ohio

Robert F. Utz, *Utz Seed Farms,* New Washington, Ohio

Russell Wagner, *Wagner Farms,* Pleasantville, Ohio

CE059526

Ohio's Future at Work

Division of Vocational and Career Education
Ohio Department of Education

Vocational Instructional Materials Laboratory
Center on Education and Training for Employment

THE OHIO STATE UNIVERSITY

BEST COPY AVAILABLE

What is OCAP?

"A comprehensive and verified employer competency list will be developed and kept current for each program." This is the second objective of Imperative 3 of the *Action Plan for Accelerating the Modernization of Vocational Education: Ohio's Future at Work*. Ohio's Competency Analysis Profile (OCAP) lists are the Division of Vocational and Career Education's response to that objective. OCAP lists evolve from a modified DACUM process involving business, industry, labor, and community agency representatives from throughout Ohio. The OCAP process is directed by the Vocational Instructional Materials Laboratory at The Ohio State University's Center on Education and Training for Employment.

How is OCAP used?

Each OCAP contains units (with and without subunits), competencies, and competency builders that identify the occupational, academic, and employability skills needed to enter a given occupation or occupational area. Within that outline there are three levels of items: core, advancing, and futuring. Core items are essential to entry-level employment. These items are required to be taught and will be the basis for questions on the state vocational competency tests (scheduled to begin in FY93). Advancing items (marked with one asterisk) are needed to advance in a given occupation. Futuring items (marked with two asterisks) are needed to enter and remain in a given occupation three to four years from now.

Districts may add as many units, subunits, competencies, and competency builders as desired to reflect local employment needs, trends, and specialties. Local advisory committees should be actively involved in the identification and verification of additional items. Using OCAP lists, instructors will be able to formulate their courses of study and monitor competency gains via the new competency testing program.

The **Employability Skills** portion of this list was verified by the following employer panel:

Gary J. Corrigan, *Dana Corporation*, Ottawa Lake, Michigan
David Crooks, *Bowling Green State University Union Food Service*, Bowling Green, Ohio
Pat Doerman, *Farrow's Harley-Davidson*, Columbus, Ohio
William Gockenbach, *Kaiser Aluminum*, Heath, Ohio
Patsy Hathaway, *CBS Personnel Services, Inc.*, Dayton, Ohio
Marlyn Harman, *Marlyn Harman & Associates*, Cleveland, Ohio
Thomas R. Hyldahl, *Toledo Edison*, Toledo, Ohio
Carol C. James, *Ohio Contractors Association*, Columbus, Ohio
James Mack, *Chrysler Jeep Assembly*, Toledo, Ohio
Rocky McCoy, *Ironton-Lawrence Co. Community Action Organization*, Ironton, Ohio
James Needs, *Independent Crop Producer*, Upper Sandusky, Ohio
Ronald Simmons, *Former GM Executive*, Warren Ohio

BEST COPY AVAILABLE

OHIO COMPETENCY ANALYSIS PROFILE

CROP PRODUCER

UNIT 1: General Safety Precautions

COMPETENCY 1.0.1: Maintain safe work environment

COMPETENCY BUILDERS:

1.0.1.1 Read and follow safety information
1.0.1.2 Organize and maintain clean and safe work area
1.0.1.3 Install and maintain safety devices
1.0.1.4 Ventilate work areas
1.0.1.5 Identify and correct safety hazards
1.0.1.6 Recognize symbols for hazardous materials or situations
1.0.1.7 Determine when work conditions are unsafe
1.0.1.8 Determine when outside help is needed to control hazardous materials or situations
1.0.1.9 Identify and correct hazardous situations and areas*
1.0.1.10 Clean up and dispose of hazardous materials*
1.0.1.11 Store hazardous materials*

COMPETENCY 1.0.2: Apply safe work habits

COMPETENCY BUILDERS:

1.0.2.1 Wear protective clothing, respirators, and other equipment
1.0.2.2 Use safe lifting and carrying methods
1.0.2.3 Administer first aid
1.0.2.4 Follow safety directions on hazardous materials labels
1.0.2.5 Use fire extinguishers
1.0.2.6 Recognize symptoms of chemical injury or poisoning
1.0.2.7 Handle compressed gases
1.0.2.8 Maintain and use slow moving vehicle signs when operating vehicles on road
1.0.2.9 Prevent riders on tractors
1.0.2.10 Recognize when to consult supervisor regarding hazardous situations
1.0.2.11 Identify physical limitations leading to hazardous situations
1.0.2.12 Determine how environmental situations (e.g., time of day) affect likelihood of hazardous situation

* Advancing
** Futuring

COMPETENCY 1.0.3: Operate and maintain equipment

COMPETENCY BUILDERS:

1.0.3.1 Follow safety rules for equipment operation and maintenance
1.0.3.2 Operate equipment defensively
1.0.3.3 Maintain safety shields on all equipment
1.0.3.4 Shut down power equipment before servicing
1.0.3.5 Follow procedures on posted lists of hazardous situations*
1.0.3.6 Notify appropriate business personnel of hazardous situations*
1.0.3.7 Follow current rules or guidelines of Environmental Protection Agency and other government agencies regarding hazardous materials or procedures*
1.0.3.8 Identify authorities to contact in emergency situations*
1.0.3.9 Use advanced cleanup procedures and facilities**
1.0.3.10 Operate additional safety lockout devices on power equipment**
1.0.3.11 Keep detailed records of safety practices and chemical use**
1.0.3.12 Follow government restrictions concerning noise pollution and nuisance situations**

UNIT 2: Crop Production

COMPETENCY 2.0.1: Test soil and plant tissues

COMPETENCY BUILDERS:

2.0.1.1 Take soil samples
2.0.1.2 Submit prepared soil samples and forms to analysis laboratory
2.0.1.3 Take plant tissue samples
2.0.1.4 Submit prepared plant tissue samples and forms to analysis laboratory
2.0.1.5 Interpret soil analysis results*
2.0.1.6 Interpret plant analysis results*
2.0.1.7 Monitor nutrient levels with infield equipment**

* Advancing
** Futuring

COMPETENCY 2.0.2: Determine land class capability

COMPETENCY BUILDERS:

2.0.2.1 Evaluate soil drainage
2.0.2.2 Identify soil texture and percent organic matter
2.0.2.3 Identify soil structure and type
2.0.2.4 Determine slope
2.0.2.5 Determine soil use capability and suitability
2.0.2.6 Follow government regulations and guidelines*
2.0.2.7 Use infrared mapping*

COMPETENCY 2.0.3: Practice soil and water conservation

COMPETENCY BUILDERS:

2.0.3.1 Identify soil and water conservation structures and methods
2.0.3.2 Understand soil and water conservation structures and methods
2.0.3.3 Maintain soil and water conservation structures and methods
2.0.3.4 Evaluate planting and tillage methods
2.0.3.5 Interpret government programs and follow guidelines
2.0.3.6 Manage residue to reduce erosion

COMPETENCY 2.0.4: Plan crop planting

COMPETENCY BUILDERS:

2.0.4.1 Identify crop seeds
2.0.4.2 Interpret seed tag information
2.0.4.3 Store seed
2.0.4.4 Interpret planting charts on seed bag
2.0.4.5 Calculate number of bushels of seed needed
2.0.4.6 Evaluate stand of forage or winter wheat
2.0.4.7 Determine crops to plant*
2.0.4.8 Establish crop rotation*
2.0.4.9 Select seed*
2.0.4.10 Conduct seed germination and vigor tests*
2.0.4.11 Determine seeding rate*
2.0.4.12 Determine need for companion crop*
2.0.4.13 Calendar rotation and acreage of each crop*
2.0.4.14 Determine time to plow*
2.0.4.15 Determine steps to improve stand*
2.0.4.16 Calculate price per pound of pure live seed*
2.0.4.17 Evaluate alternative crops**

* Advancing
** Futuring

COMPETENCY 2.0.5: Plant and till crops

COMPETENCY BUILDERS:

2.0.5.1 Follow general safety precautions
2.0.5.2 Inoculate seed
2.0.5.3 Determine soil conditions to minimize soil compaction
2.0.5.4 Prepare seedbed
2.0.5.5 Operate planting equipment
2.0.5.6 Cultivate crops
2.0.5.7 Identify crop problems
2.0.5.8 Select planting or seeding method and date*
2.0.5.9 Determine planting depth and rate*
2.0.5.10 Calibrate planting equipment*
2.0.5.11 Determine cause of crop problems*
2.0.5.12 Operate new planting and cultivating equipment**
2.0.5.13 Use infrared sensing photos**

COMPETENCY 2.0.6: Develop fertilization plan

COMPETENCY BUILDERS:

2.0.6.1 Determine crop nutrient needs
2.0.6.2 Interpret fertilization rate charts
2.0.6.3 Identify major plant nutrient deficiency symptoms
2.0.6.4 Select fertilizer analysis*
2.0.6.5 Select fertilizer application method*
2.0.6.6 Determine time for fertilizer application*
2.0.6.7 Calculate fertilization and lime rates based on plant and soil analysis*
2.0.6.8 Determine kinds and forms of nutrients and lime to apply*
2.0.6.9 Estimate costs of lime and fertilizer recommendations*
2.0.6.10 Calculate fertilization rates required for maximum return per fertilizer dollar*
2.0.6.11 Use by-product fertilization (i.e., alternative fertilizer materials)**

* Advancing
** Futuring

COMPETENCY 2.0.7: Fertilize crops

COMPETENCY BUILDERS:

2.0.7.1 Follow general safety precautions
2.0.7.2 Transfer liquid fertilizer from nurse tank to applicator
2.0.7.3 Apply fertilizer
2.0.7.4 Recognize signs of fertilizer injury
2.0.7.5 Recognize increased risks of handling NH3
2.0.7.6 Mix fertilizer and chemical solutions*
2.0.7.7 Calibrate fertilizer application equipment*
2.0.7.8 Transfer NH3 from nurse tank to applicator*
2.0.7.9 Follow government regulations regarding legal amounts, timing, and placement of fertilizers**
2.0.7.10 Apply fertilizer using computerized, on-the-go method**

COMPETENCY 2.0.8: Plan insect, disease, and weed control

COMPETENCY BUILDERS:

2.0.8.1 Assess need for consultant field scouting
2.0.8.2 Scout and identify common weeds and weed seeds
2.0.8.3 Scout and identify common insects and insect damage
2.0.8.4 Scout and identify common diseases and disease damage
2.0.8.5 Identify bird and wildlife damage
2.0.8.6 Determine when controls are needed*
2.0.8.7 Identify control options*
2.0.8.8 Evaluate options and select control method*
2.0.8.9 Estimate economic loss due to pests*
2.0.8.10 Use seeds with herbicide resistance**
2.0.8.11 Control insects biologically**
2.0.8.12 Control weeds electronically**

* Advancing
** Futuring

COMPETENCY 2.0.9: Apply insect, disease, and weed control methods

COMPETENCY BUILDERS:

2.0.9.1 Follow general safety precautions
2.0.9.2 Wear protective clothing and equipment
2.0.9.3 Follow chemical use regulations
2.0.9.4 Use proper chemical handling procedures
2.0.9.5 Dispose of chemical containers
2.0.9.6 Use mechanical control methods
2.0.9.7 Select chemicals*
2.0.9.8 Interpret chemical labels and compatibility charts*
2.0.9.9 Recognize chemical injury*
2.0.9.10 Calibrate application equipment*
2.0.9.11 Mix chemicals and load application equipment*
2.0.9.12 Maintain application record*
2.0.9.13 Use biological control methods*
2.0.9.14 Follow proper cleaning and storing procedures*
2.0.9.15 Use cultural control methods*
2.0.9.16 Pass certified applicators test*

COMPETENCY 2.0.10: Harvest crops

COMPETENCY BUILDERS:

2.0.10.1 Follow general safety precautions
2.0.10.2 Determine crop maturity
2.0.10.3 Determine moisture content
2.0.10.4 Rake and ted hay
2.0.10.5 Cut and condition forages
2.0.10.6 Bale dried forages and bedding materials
2.0.10.7 Clip grain stubble after harvesting for straw
2.0.10.8 Determine yields
2.0.10.9 Determine when to harvest*
2.0.10.10 Determine acreage to cut at one time*
2.0.10.11 Determine forage cuttings to harvest*
2.0.10.12 Set and operate equipment to reduce harvest loss*
2.0.10.13 Select and use desiccants*
2.0.10.14 Prioritize harvesting areas*
2.0.10.15 Combine grain crops*
2.0.10.16 Distribute and manage residue*
2.0.10.17 Determine harvest losses*
2.0.10.18 Minimize soil compaction*
2.0.10.19 Evaluate grain and forage quality*
2.0.10.20 Harvest food quality crops**
2.0.10.21 Monitor crop quality electronically**
2.0.10.22 Salvage crop residues for energy**

* Advancing
** Futuring

COMPETENCY 2.0.11: Store crops

COMPETENCY BUILDERS:

2.0.11.1 Follow general safety precautions
2.0.11.2 Unload grain wagons
2.0.11.3 Unload silage wagons
2.0.11.4 Stack bales
2.0.11.5 Calculate amount of available and needed grain storage
2.0.11.6 Fill silo, bags, and balage
2.0.11.7 Calculate amount of grain and forage in storage
2.0.11.8 Select storage facilities*
2.0.11.9 Select drying system*
2.0.11.10 Clean and fumigate storage areas*
2.0.11.11 Operate dryer and fans*
2.0.11.12 Treat grain for pest control*
2.0.11.13 Clean grain*
2.0.11.14 Apply biological control of grain pests*
2.0.11.15 Apply silage and hay additives*
2.0.11.16 Use alternative fuel systems**
2.0.11.17 Dry crops with microwave**

COMPETENCY 2.0.12: Maintain quality of stored crops

COMPETENCY BUILDERS:

2.0.12.1 Follow general safety precautions
2.0.12.2 Use grain probe to collect crop samples
2.0.12.3 Clean storage area
2.0.12.4 Determine moisture content
2.0.12.5 Determine condition of stored crops*
2.0.12.6 Determine safe moisture content for storing grains and forages*
2.0.12.7 Control temperature and humidity in storage areas*
2.0.12.8 Identify storage problems*
2.0.12.9 Monitor stored crops electronically**

* Advancing
** Futuring

UNIT 3: Agricultural Mechanics

COMPETENCY 3.0.1: Operate and maintain small engines

COMPETENCY BUILDERS:

3.0.1.1 Follow general safety precautions
3.0.1.2 Check fuel and fuel engine
3.0.1.3 Select oil
3.0.1.4 Check oil level and change oil and oil filters
3.0.1.5 Start, operate, and shut down engine
3.0.1.6 Mix gas and oil for two-cycle engine
3.0.1.7 Clean external engine components
3.0.1.8 Service air cleaner
3.0.1.9 Remove, clean, and regap spark plugs
3.0.1.10 Service and clean crankcase breathers
3.0.1.11 Service and clean fuel strainer
3.0.1.12 Check engine compression
3.0.1.13 Check and service battery
3.0.1.14 Store engine
3.0.1.15 Schedule fluid and filter changes*
3.0.1.16 Replace starter cord*
3.0.1.17 Pull and replace flywheel and clutch assembly*
3.0.1.18 Remove manifold carbon deposits*
3.0.1.19 Clean and adjust carburetor*
3.0.1.20 Troubleshoot problems*

COMPETENCY 3.0.2: Service cooling systems for large engines

COMPETENCY BUILDERS:

3.0.2.1 Follow general safety precautions
3.0.2.2 Test antifreeze
3.0.2.3 Add radiator coolant
3.0.2.4 Clean radiator exterior
3.0.2.5 Replace hoses
3.0.2.6 Check cooling system filters and conditioners*
3.0.2.7 Select antifreeze*
3.0.2.8 Flush cooling system*
3.0.2.9 Test thermostat*
3.0.2.10 Replace thermostat*
3.0.2.11 Replace water pump*
3.0.2.12 Replace radiator*
3.0.2.13 Troubleshoot problems*

* Advancing
** Futuring

COMPETENCY 3.0.3: Service lubrication systems for large engines

COMPETENCY BUILDERS:

3.0.3.1 Follow general safety precautions
3.0.3.2 Change oil and oil filters
3.0.3.3 Lubricate equipment
3.0.3.4 Maintain grease fittings
3.0.3.5 Troubleshoot problems
3.0.3.6 Select oil*
3.0.3.7 Repack bearings*
3.0.3.8 Remove and replace oil seal*

COMPETENCY 3.0.4: Service fuel and air systems for large engines

COMPETENCY BUILDERS:

3.0.4.1 Follow general safety precautions
3.0.4.2 Adjust engine valves
3.0.4.3 Service air cleaner*
3.0.4.4 Bleed diesel fuel system*
3.0.4.5 Service fuel strainer, filters, and sediment bowl*
3.0.4.6 Clean carburetor*
3.0.4.7 Perform basic carburetor overhaul*
3.0.4.8 Adjust engine governor*
3.0.4.9 Replace exhaust system components*
3.0.4.10 Replace fuel pump*
3.0.4.11 Troubleshoot problems*

COMPETENCY 3.0.5: Maintain and service electrical systems for large engines

COMPETENCY BUILDERS:

3.0.5.1 Follow general safety precautions
3.0.5.2 Install battery
3.0.5.3 Clean and treat battery terminals, cables, and battery box
3.0.5.4 Charge battery
3.0.5.5 Check charging rate of ammeter
3.0.5.6 Replace fuses, circuit breakers, and light bulbs
3.0.5.7 Replace spark plugs and wires
3.0.5.8 Clean and adjust spark plug gap
3.0.5.9 Check for bad cell in battery
3.0.5.10 Replace distributor cap and rotor*
3.0.5.11 Inspect, adjust, or change breaker points*
3.0.5.12 Troubleshoot problems*
3.0.5.13 Use microchips and computer boards**

* Advancing
** Futuring

COMPETENCY 3.0.6: Service belt and drive chain assemblies

COMPETENCY BUILDERS:

3.0.6.1 Follow general safety precautions
3.0.6.2 Inspect and correct belt tension
3.0.6.3 Clean sprockets, chains, and gears
3.0.6.4 Clean and lubricate drive parts
3.0.6.5 Troubleshoot problems
3.0.6.6 Replace belts*
3.0.6.7 Maintain gear drives*
3.0.6.8 Replace gears*
3.0.6.9 Replace and adjust chains*
3.0.6.10 Replace pulleys*
3.0.6.11 Replace rollers*

COMPETENCY 3.0.7: Repair and service wheels, tires, and tracks

COMPETENCY BUILDERS:

3.0.7.1 Follow general safety precautions
3.0.7.2 Check tire pressure
3.0.7.3 Check and tighten lug nuts
3.0.7.4 Check dual attachments
3.0.7.5 Replace implement wheels
3.0.7.6 Adjust wheel spacing*
3.0.7.7 Service wheel bearing assembly*
3.0.7.8 Patch tire*

COMPETENCY 3.0.8: Service hydraulic systems

COMPETENCY BUILDERS:

3.0.8.1 Follow general safety precautions
3.0.8.2 Check and add oil
3.0.8.3 Check gauges each operation
3.0.8.4 Check for leaks
3.0.8.5 Clean oil cooler
3.0.8.6 Bleed air from system*
3.0.8.7 Drain, clean, flush, and refill hydraulic system*
3.0.8.8 Replace oil filter*
3.0.8.9 Troubleshoot problems*

* Advancing
** Futuring

COMPETENCY 3.0.9: Hitch equipment to power units

COMPETENCY BUILDERS:

3.0.9.1 Follow general safety precautions
3.0.9.2 Connect front-end operated equipment
3.0.9.3 Connect 3-point hitch equipment
3.0.9.4 Attach and detach PTO equipment
3.0.9.5 Hitch towed equipment
3.0.9.6 Connect hydraulic systems and equipment
3.0.9.7 Connect electrical hookups
3.0.9.8 Connect safety chains

COMPETENCY 3.0.10: Operate equipment and vehicles

COMPETENCY BUILDERS:

3.0.10.1 Follow general safety precautions
3.0.10.2 Identify engine components and functions
3.0.10.3 Refuel power units
3.0.10.4 Add wheel and front-end weights
3.0.10.5 Observe warm-up and cool-down cycles of engine
3.0.10.6 Start and stop engine
3.0.10.7 Use engine block heater
3.0.10.8 Read equipment gauges
3.0.10.9 Obtain driver's license, tractor certification, or equivalent
3.0.10.10 Operate equipment and vehicles under work conditions and on public roads according to certification standards
3.0.10.11 Use hand operating signals on public roads
3.0.10.12 Adjust equipment and vehicles*

COMPETENCY 3.0.11: Identify components of material handling systems

COMPETENCY BUILDERS:

3.0.11.1 Follow general safety precautions
3.0.11.2 Identify components of silo loaders
3.0.11.3 Identify components of grain and fertilizer handling equipment

COMPETENCY 3.0.12: Operate material handling equipment

COMPETENCY BUILDERS:

3.0.12.1 Follow general safety precautions
3.0.12.2 Identify equipment
3.0.12.3 Adjust equipment*

* Advancing
** Futuring

COMPETENCY 3.0.13: Clean and store equipment

COMPETENCY BUILDERS:

3.0.13.1 Follow general safety precautions
3.0.13.2 Remove debris from equipment
3.0.13.3 Clean equipment
3.0.13.4 Inspect for broken or worn parts
3.0.13.5 Protect equipment from weather
3.0.13.6 Lubricate for storage
3.0.13.7 Prepare repair list*
3.0.13.8 Pull or protect computer and modular component boards before storing equipment**

COMPETENCY 3.0.14: Plan construction of farm structures

COMPETENCY BUILDERS:

3.0.14.1 Follow general safety precautions
3.0.14.2 Identify nominal and dressed sizes of lumber
3.0.14.3 Determine energy requirements for heating, ventilating, or cooling
3.0.14.4 Calculate board footage of lumber*
3.0.14.5 Select types of structures required*
3.0.14.6 Determine space requirements*
3.0.14.7 Design plans for new structures or improvement or expansion of current structures*
3.0.14.8 Interpret blueprints*
3.0.14.9 Develop bill of materials*
3.0.14.10 Select building materials*
3.0.14.11 Identify grading categories for softwood and hardwood*
3.0.14.12 Excavate structure sites for concrete pouring*
3.0.14.13 Heat or cool with underground source of heat transfer**
3.0.14.14 Build with plastic building materials**
3.0.14.15 Follow Environmental Protection Agency regulations for building structures**

* Advancing
** Futuring

COMPETENCY 3.0.15: Construct with concrete*

COMPETENCY BUILDERS:

3.0.15.1 Follow general safety precautions*
3.0.15.2 Use dumpy level*
3.0.15.3 Calculate volume of concrete to order or mix*
3.0.15.4 Select concrete materials*
3.0.15.5 Build and remove concrete forms*
3.0.15.6 Order concrete*
3.0.15.7 Mix and pour concrete*
3.0.15.8 Install concrete reinforcement*
3.0.15.9 Evaluate concrete slump*
3.0.15.10 Finish concrete surface*
3.0.15.11 Cure concrete*
3.0.15.12 Mix mortar*
3.0.15.13 Lay blocks*

COMPETENCY 3.0.16: Construct with wood

COMPETENCY BUILDERS:

3.0.16.1 Follow general safety precautions
3.0.16.2 Identify types of lumber
3.0.16.3 Use wood treated for application
3.0.16.4 Cut lumber to dimension
3.0.16.5 Repair minor leaks in roof
3.0.16.6 Replace window panes
3.0.16.7 Stack, season, and store lumber*
3.0.16.8 Install and repair bracing*
3.0.16.9 Install and repair wood siding*
3.0.16.10 Install and repair doors and hardware*
3.0.16.11 Cut and fit joints*
3.0.16.12 Select and apply metal fasteners*
3.0.16.13 Assemble joints with glue*
3.0.16.14 Select and install insulation*

COMPETENCY 3.0.17: Plan electrical installations*

COMPETENCY BUILDERS:

3.0.17.1 Follow general safety precautions*
3.0.17.2 Determine electrical needs*
3.0.17.3 Plan wiring layouts*
3.0.17.4 Plan distribution system*
3.0.17.5 Plan service entrance*
3.0.17.6 Select wire and electrical supplies*
3.0.17.7 Determine total cost of materials*
3.0.17.8 Select alternative electrical sources*

* Advancing
** Futuring

COMPETENCY 3.0.18: Install and maintain electrical systems

COMPETENCY BUILDERS:

3.0.18.1 Follow general safety precautions
3.0.18.2 Read electric meter
3.0.18.3 Repair and replace electrical cord
3.0.18.4 Replace circuit breakers and fuses*
3.0.18.5 Connect and disconnect alternative power sources*
3.0.18.6 Select and use tools, measuring devices, and other equipment*
3.0.18.7 Wire electrical circuits*
3.0.18.8 Replace lighting fixtures*
3.0.18.9 Clean and lubricate motors*
3.0.18.10 Maintain records of electrical maintenance*
3.0.18.11 Install and maintain electric motors on structure*
3.0.18.12 Troubleshoot problems*

COMPETENCY 3.0.19: Install and maintain water systems*

COMPETENCY BUILDERS:

3.0.19.1 Follow general safety precautions*
3.0.19.2 Cut and fit pipe or tubing*
3.0.19.3 Thread metal pipe*
3.0.19.4 Install and repair pipe and pipe fittings*
3.0.19.5 Plan system*
3.0.19.6 Determine required quantity and quality of water*
3.0.19.7 Select water source*
3.0.19.8 Determine tools and equipment needed*
3.0.19.9 Contract for system installation*
3.0.19.10 Select pipe, pipe fittings, insulation, and plumbing fixtures*
3.0.19.11 Determine cost of materials*
3.0.19.12 Install and repair valves and faucets*
3.0.19.13 Install insulation and filter*
3.0.19.14 Troubleshoot problems*

COMPETENCY 3.0.20: Use and maintain hand and power tools

COMPETENCY BUILDERS:

3.0.20.1 Follow general safety precautions
3.0.20.2 Identify tools
3.0.20.3 Select tools
3.0.20.4 Follow operation instructions
3.0.20.5 Set up and adjust tools
3.0.20.6 Clean and lubricate tools
3.0.20.7 Use and operate pneumatic tools
3.0.20.8 Store tools
3.0.20.9 Recondition tools*

* Advancing
** Futuring

COMPETENCY 3.0.21: Weld with gas

COMPETENCY BUILDERS:

3.0.21.1 Follow general safety precautions
3.0.21.2 Cut metal
3.0.21.3 Clean and store gas welding equipment
3.0.21.4 Secure and store gas cylinders
3.0.21.5 Set up and adjust gas welding equipment
3.0.21.6 Select rod*
3.0.21.7 Select and apply flux*
3.0.21.8 Make lap weld*
3.0.21.9 Make butt weld*
3.0.21.10 Make fillet weld*
3.0.21.11 Weld steel in horizontal and non horizontal positions*
3.0.21.12 Weld steel with filler rod*
3.0.21.13 Weld steel by fusion*
3.0.21.14 Braze metal*
3.0.21.15 Hardsurface metal*

COMPETENCY 3.0.22: Weld with electric arc and MIG

COMPETENCY BUILDERS:

3.0.22.1 Follow general safety precautions
3.0.22.2 Select welding equipment and accessories
3.0.22.3 Select electrode sizes and types
3.0.22.4 Select settings
3.0.22.5 Prepare metal
3.0.22.6 Weld steel in horizontal positions
3.0.22.7 Clean and store welding equipment
3.0.22.8 Make lap weld*
3.0.22.9 Make butt weld*
3.0.22.10 Make fillet weld*
3.0.22.11 Weld pipe*
3.0.22.12 Cut metal using electrode*
3.0.22.13 Hardsurface metal*
3.0.22.14 Weld steel in non horizontal positions*
3.0.22.15 Weld cast iron*
3.0.22.16 Cut metal with plasma cutter**

* Advancing
** Futuring

COMPETENCY 3.0.23: Fabricate with metal

COMPETENCY BUILDERS:

3.0.23.1 Follow general safety precautions
3.0.23.2 Identify types of metal
3.0.23.3 Identify nominal sizes of metal
3.0.23.4 Punch and drill metal
3.0.23.5 Cut metal
3.0.23.6 Select thread and size for tap or die
3.0.23.7 Grind metal
3.0.23.8 Attach hardware to sheet metal
3.0.23.9 Store metal
3.0.23.10 Join metal with pop rivets
3.0.23.11 Design metal project*
3.0.23.12 Prepare bill of materials*
3.0.23.13 Determine metal properties*
3.0.23.14 Test metal for type and hardness*
3.0.23.15 Bend sheet metal*
3.0.23.16 Join metal with spot welder*

COMPETENCY 3.0.24: Solder*

COMPETENCY BUILDERS:

3.0.24.1 Follow general safety precautions*
3.0.24.2 Select soldering method*
3.0.24.3 Select tools*
3.0.24.4 Select flux*
3.0.24.5 Select solder*
3.0.24.6 Prepare surfaces*
3.0.24.7 Apply solder*
3.0.24.8 Clean equipment*

COMPETENCY 3.0.25: Apply protective coatings

COMPETENCY BUILDERS:

3.0.25.1 Follow general safety precautions
3.0.25.2 Determine type of coating
3.0.25.3 Select and use application tools
3.0.25.4 Use steam cleaner and pressure washer
3.0.25.5 Sand surface
3.0.25.6 Apply masking tape
3.0.25.7 Mix thinner
3.0.25.8 Apply primer coat
3.0.25.9 Dispose of leftover finish materials
3.0.25.10 Apply finish coat
3.0.25.11 Use paint and varnish remover*

* Advancing
** Futuring

UNIT 4: Business Management

COMPETENCY 4.0.1: Perform general office work

COMPETENCY BUILDERS:

4.0.1.1 File materials
4.0.1.2 Meet with people
4.0.1.3 Use telephone
4.0.1.4 Use two-way radio
4.0.1.5 Process incoming and outgoing mail*
4.0.1.6 Establish filing system*
4.0.1.7 Schedule and hold appointments*
4.0.1.8 Write correspondence*
4.0.1.9 Operate computer*
4.0.1.10 Evaluate software programs*

COMPETENCY 4.0.2: Perform general banking procedures*

COMPETENCY BUILDERS:

4.0.2.1 Write checks*
4.0.2.2 Prepare bank deposit slips and make bank deposits*
4.0.2.3 Balance bank statements*
4.0.2.4 Use electronic banking procedures*

COMPETENCY 4.0.3: Inventory business

COMPETENCY BUILDERS:

4.0.3.1 Take physical inventory of structures, facilities, and equipment
4.0.3.2 Calculate amount of grain and forage
4.0.3.3 Determine volume or capacity of storage facilities
4.0.3.4 Establish inventory system*
4.0.3.5 Categorize inventory items as current, intermediate, or long-term assets*
4.0.3.6 Determine current market value for inventory items*

* Advancing
** Futuring

COMPETENCY 4.0.4: Supervise and manage labor*

COMPETENCY BUILDERS:

4.0.4.1 Determine amount of labor needed*
4.0.4.2 Evaluate hiring labor versus contracting services*
4.0.4.3 Prepare for periods of peak work loads*
4.0.4.4 Maintain clean, safe working environment*
4.0.4.5 Establish pay scale, benefits, and incentives*
4.0.4.6 Hire workers*
4.0.4.7 Plan work schedules*
4.0.4.8 Train workers*
4.0.4.9 Evaluate worker performance*
4.0.4.10 Establish job termination procedures*

COMPETENCY 4.0.5: Maintain supplies*

COMPETENCY BUILDERS:

4.0.5.1 Set minimum and maximum inventory levels*
4.0.5.2 Regulate storage facility environment*
4.0.5.3 Compare costs and quality of supplies from different sources*
4.0.5.4 Purchase inputs*
4.0.5.5 Use electronic management procedures*
4.0.5.6 Use general accounting procedures**

COMPETENCY 4.0.6: Complete financial and tax records*

COMPETENCY BUILDERS:

4.0.6.1 Maintain record-keeping system*
4.0.6.2 Record receipts and expenses*
4.0.6.3 Maintain crop enterprise records*
4.0.6.4 Maintain accounts payable and receivable record*
4.0.6.5 Evaluate cash versus accrual reporting methods*
4.0.6.6 Maintain payroll records*
4.0.6.7 Determine depreciation method*
4.0.6.8 Compute book and salvage values of depreciable assets*
4.0.6.9 Calculate and record depreciation*

* Advancing
** Futuring

COMPETENCY 4.0.7: Complete general and production records

COMPETENCY BUILDERS:

4.0.7.1 Maintain crop production records
4.0.7.2 Maintain equipment service records
4.0.7.3 Maintain inventory records*
4.0.7.4 Maintain labor records*
4.0.7.5 Maintain accident records*
4.0.7.6 Determine field acreage using actual measurements and scale maps*
4.0.7.7 Draw and interpret farm map including field boundaries, major soil types, topography, vegetation, surface drainage, and travel areas*
4.0.7.8 Draw and interpret farm map of subsurface drainage system*
4.0.7.9 Maintain pesticide-use records*
4.0.7.10 Maintain marketing sales records*

COMPETENCY 4.0.8: Summarize and analyze business records*

COMPETENCY BUILDERS:

4.0.8.1 Make ten-month summary of cash expenses and receipts*
4.0.8.2 Calculate efficiency factors*
4.0.8.3 Calculate family labor and management income*
4.0.8.4 Determine net income and profit*
4.0.8.5 Analyze and compare use of capital with standards for similar farms*
4.0.8.6 Prepare income statement*
4.0.8.7 Calculate and record net worth*
4.0.8.8 Determine effectiveness of management practices*
4.0.8.9 Analyze enterprise records*

* Advancing
** Futuring

COMPETENCY 4.0.9: Finance business*

COMPETENCY BUILDERS:

4.0.9.1 Identify credit strengths and weaknesses*
4.0.9.2 Develop cash flow projections*
4.0.9.3 Establish budget*
4.0.9.4 Evaluate risks of using borrowed capital*
4.0.9.5 Identify factors influencing credit ratings*
4.0.9.6 Plan one-year, intermediate, and long-term credit needs*
4.0.9.7 Identify credit sources*
4.0.9.8 Evaluate loan repayment terms and conditions*
4.0.9.9 Select credit source*
4.0.9.10 Negotiate credit plan*
4.0.9.11 Calculate cost of loan*
4.0.9.12 Fill out loan application*
4.0.9.13 Sign loan agreement*
4.0.9.14 Maintain balance of savings and cash*
4.0.9.15 Make loan payments*

COMPETENCY 4.0.10: Keep records and file tax forms*

COMPETENCY BUILDERS:

4.0.10.1 Calculate property taxes*
4.0.10.2 Select tax consultant service*
4.0.10.3 Determine amount of social security to be paid*
4.0.10.4 Estimate income tax*
4.0.10.5 Prepare federal income tax forms*
4.0.10.6 Prepare state income tax form*

COMPETENCY 4.0.11: Plan insurance coverage*

COMPETENCY BUILDERS:

4.0.11.1 Determine type and amount of insurance needed*
4.0.11.2 Evaluate different types of insurance*
4.0.11.3 Identify insurance providers and evaluate programs*
4.0.11.4 Complete insurance application and purchase insurance*
4.0.11.5 Apply for collections*
4.0.11.6 File claim*

* Advancing
** Futuring

COMPETENCY 4.0.12: Follow legal requirements*

COMPETENCY BUILDERS:

4.0.12.1 Identify government agencies regulating farm operations*
4.0.12.2 Comply with employers' and employees' legal responsibilities*
4.0.12.3 Establish system for government regulation compliance*

COMPETENCY 4.0.13: Obtain land*

COMPETENCY BUILDERS:

4.0.13.1 Determine amount of land needed*
4.0.13.2 Determine amount of capital available for obtaining land*
4.0.13.3 Determine whether to purchase or lease land*
4.0.13.4 Appraise available land and identify factors influencing use*
4.0.13.5 Evaluate and complete lease agreement*
4.0.13.6 Evaluate land price cycles and determine when to purchase*
4.0.13.7 Purchase land*

COMPETENCY 4.0.14: Plan structures*

COMPETENCY BUILDERS:

4.0.14.1 Estimate structure needs*
4.0.14.2 Calculate returns expected from structure investments*
4.0.14.3 Calculate construction, remodeling, and repair costs*
4.0.14.4 Determine locations of new structures*
4.0.14.5 Build or lease structures*
4.0.14.6 Determine zoning requirements and building codes*
4.0.14.7 Evaluate tax consequences of building structures*

COMPETENCY 4.0.15: Manage equipment program*

COMPETENCY BUILDERS:

4.0.15.1 Determine equipment needs*
4.0.15.2 Determine whether to purchase or lease equipment, or to hire work done*
4.0.15.3 Determine whether to repair or trade in equipment*
4.0.15.4 Determine whether to do custom work for others*
4.0.15.5 Estimate returns expected from equipment investments*
4.0.15.6 Evaluate advantages and disadvantages of different types and brands of equipment*
4.0.15.7 Evaluate joint ownership of equipment*
4.0.15.8 Evaluate tax consequences of equipment ownership versus other options*

COMPETENCY 4.0.16: Enter, establish, or adjust size of business*

COMPETENCY BUILDERS:

4.0.16.1 Establish farm family goals*
4.0.16.2 Evaluate costs and returns for various enterprises*
4.0.16.3 Determine type of business organization*
4.0.16.4 Decide whether to specialize or diversify*
4.0.16.5 Develop plan for adjusting management practices*
4.0.16.6 Determine when to secure professional help*
4.0.16.7 Establish land use plan*
4.0.16.8 Reevaluate plans and maintain flexibility*

COMPETENCY 4.0.17: Plan retirement and estate*

COMPETENCY BUILDERS:

4.0.17.1 Select retirement program*
4.0.17.2 Plan orderly transfer of property*
4.0.17.3 Transfer ownership or sell farm*
4.0.17.4 Develop plan for bestowing estate*
4.0.17.5 Identify payment methods for estate and gift taxes*
4.0.17.6 Maintain current will*

* Advancing
** Futuring

UNIT 5: Marketing

COMPETENCY 5.0.1: Analyze market

COMPETENCY BUILDERS:

5.0.1.1 Identify information sources
5.0.1.2 Recognize existence of market cycles
5.0.1.3 Evaluate effect grain quality has on market prices
5.0.1.4 Calculate expected returns and profits
5.0.1.5 Determine daily cash, basis, and future prices*
5.0.1.6 Interpret market reports*
5.0.1.7 Evaluate niche marketing*
5.0.1.8 Evaluate effect international events have on market prices*
5.0.1.9 Evaluate effect government programs have on market prices*

COMPETENCY 5.0.2: Establish marketing plans*

COMPETENCY BUILDERS:

5.0.2.1 Evaluate options of feeding grains, purchasing feeds, or marketing grains*
5.0.2.2 Evaluate marketing options*
5.0.2.3 Develop crop marketing plan*
5.0.2.4 Determine when to market*

COMPETENCY 5.0.3: Market crops*

COMPETENCY BUILDERS:

5.0.3.1 Verify market grades or classes of crops sold*
5.0.3.2 Execute marketing plan*
5.0.3.3 Prepare advertisements*
5.0.3.4 Use electronic marketing**

* Advancing
** Futuring

COMPETENCY 5.0.4: Ship crops

COMPETENCY BUILDERS:

5.0.4.1 Follow general safety precautions
5.0.4.2 Prepare vehicle and load crops
5.0.4.3 Transport and unload crops
5.0.4.4 Verify information on sales ticket
5.0.4.5 Arrange crop transport*
5.0.4.6 Grade crop seeds on oil or protein content**
5.0.4.7 Obtain commercial driver's license**
5.0.4.8 Implement longer range market plan (e.g., market one year's crop over more than one market year)**
5.0.4.9 Market through central markets**
5.0.4.10 Pool shipping quantities with other producers**
5.0.4.11 Hire professional marketers**

UNIT 6: Employability Skills

SUBUNIT 6.1: Career Development

COMPETENCY 6.1.1: Investigate career options

COMPETENCY BUILDERS:

6.1.1.1 Determine interests and aptitudes
6.1.1.2 Identify career options
6.1.1.3 Research occupations matching interests and aptitudes
6.1.1.4 Select career(s) that best match(es) interests and aptitudes
6.1.1.5 Identify advantages and disadvantages of career options, including nontraditional careers
6.1.1.6 Assess differences in wages, annual incomes, and job opportunities based on geographic location
6.1.1.7 Develop a career plan

COMPETENCY 6.1.2: Analyze potential barriers to employment

COMPETENCY BUILDERS:

6.1.2.1 Identify common barriers to employment
6.1.2.2 Develop strategies to overcome employment barriers

* Advancing
** Futuring

UNIT 6: Employability Skills

SUBUNIT 6.2: Decision Making and Problem Solving

COMPETENCY 6.2.1: Apply decision-making techniques in the workplace

COMPETENCY BUILDERS:

6.2.1.1 Identify the decision to be made
6.2.1.2 Compare alternatives
6.2.1.3 Determine consequences of each alternative
6.2.1.4 Make decisions based on values and goals
6.2.1.5 Evaluate the decision made

COMPETENCY 6.2.2: Apply problem-solving techniques in the workplace

COMPETENCY BUILDERS:

6.2.2.1 Diagnose the problem and its causes
6.2.2.2 Identify alternatives and their consequences in relation to the problem
6.2.2.3 Examine multicultural and nonsexist dimensions of problem solving
6.2.2.4 Utilize resources to explore possible solutions to the problem
6.2.2.5 Compare and contrast the advantages and disadvantages of each solution
6.2.2.6 Determine appropriate action
6.2.2.7 Evaluate results

UNIT 6: Employability Skills

SUBUNIT 6.3: Work Ethic

COMPETENCY 6.3.1: Evaluate the relationship of self-esteem to work ethic

COMPETENCY BUILDERS:

6.3.1.1 Identify special characteristics and abilities in self and others
6.3.1.2 Identify internal and external factors that affect self-esteem

* Advancing
** Futuring

COMPETENCY 6.3.2: Analyze the relationship of personal values and goals to work ethic both in and out of the workplace

COMPETENCY BUILDERS:

6.3.2.1 Distinguish between values and goals
6.3.2.2 Determine the importance of values and goals
6.3.2.3 Evaluate how values affect goals
6.3.2.4 Identify short-term and long-term goals
6.3.2.5 Prioritize personal goals
6.3.2.6 Describe how personal values are reflected in work ethic
6.3.2.7 Describe how interactions in the workplace affect personal work ethic
6.3.2.8 Examine how life changes affect personal work ethic

COMPETENCY 6.3.3: Demonstrate work ethic

COMPETENCY BUILDERS:

6.3.3.1 Examine factors that influence work ethic
6.3.3.2 Exhibit characteristics that reflect an appropriate work ethic

UNIT 6: Employability Skills

SUBUNIT 6.4: Job-Seeking Skills

COMPETENCY 6.4.1: Prepare for employment

COMPETENCY BUILDERS:

6.4.1.1 Identify traditional and nontraditional employment sources
6.4.1.2 Utilize employment sources
6.4.1.3 Research job opportunities, including nontraditional careers
6.4.1.4 Interpret equal employment opportunity laws
6.4.1.5 Explain the critical importance of personal appearance, hygiene, and demeanor throughout the employment process
6.4.1.6 Prepare for generic employment tests and those specific to an occupation/organization

* Advancing
** Futuring

COMPETENCY 6.4.2: Design a résumé

COMPETENCY BUILDERS:

6.4.2.1 Identify personal strengths and weaknesses
6.4.2.2 List skills and/or abilities, career objective(s), accomplishments/achievements, educational background, and work experience
6.4.2.3 Demonstrate legible written communication skills using correct grammar, spelling, and concise wording
6.4.2.4 Complete résumé using various formats
6.4.2.5 Secure references

COMPETENCY 6.4.3: Complete and process job application forms

COMPETENCY BUILDERS:

6.4.3.1 Explain the importance of an application form
6.4.3.2 Identify ways to obtain job application forms
6.4.3.3 Describe methods for handling illegal questions on job application forms
6.4.3.4 Demonstrate legible written communications skills using correct grammar, spelling, and concise wording
6.4.3.5 Return application to proper person, request interview, and follow up

COMPETENCY 6.4.4: Demonstrate interviewing skills

COMPETENCY BUILDERS

6.4.4.1 Investigate interview environment and procedures
6.4.4.2 Explain the critical importance of personal appearance, hygiene, and demeanor
6.4.4.3 Demonstrate question and answer techniques
6.4.4.4 Demonstrate methods for handling difficult and/or illegal interview questions

COMPETENCY 6.4.5: Secure employment

COMPETENCY BUILDERS:

6.4.5.1 Identify present and future employment opportunities within an occupation/organization
6.4.5.2 Research the organization/company
6.4.5.3 Use follow-up techniques to enhance employment potential
6.4.5.4 Compare and evaluate job offers

* Advancing
** Futuring

UNIT 6: Employability Skills

SUBUNIT 6.5: Job Retention Skills

COMPETENCY 6.5.1: Analyze the organizational structure of the workplace

COMPETENCY BUILDERS:

6.5.1.1 Identify and evaluate employer expectations regarding job performance, work habits, attitudes, personal appearance, and hygiene
6.5.1.2 Be aware of and obey all company policies and procedures
6.5.1.3 Examine the role/relationship between employee and employer
6.5.1.4 Recognize opportunities for advancement and reasons for termination

COMPETENCY 6.5.2: Maintain positive relations with others

COMPETENCY BUILDERS:

6.5.2.1 Exhibit appropriate work habits and attitude
6.5.2.2 Identify behaviors to establish successful working relationships
6.5.2.3 Cooperate and compromise through teamwork and group participation
6.5.2.4 Identify alternatives for dealing with harassment, bias, and discrimination based on race, color, national origin, sex, religion, handicap, or age

UNIT 6: Employability Skills

SUBUNIT 6.6: Job Advancement

COMPETENCY 6.6.1: Analyze opportunities for personal and career growth

COMPETENCY BUILDERS:

6.6.1.1 Determine opportunities within an occupation/organization
6.6.1.2 Compare and contrast other opportunities
6.6.1.3 List benefits of job advancement
6.6.1.4 Evaluate factors involved when assuming a new position within or outside an occupation/organization

* Advancing
** Futuring

COMPETENCY 6.6.2: Exhibit characteristics needed for advancement

COMPETENCY BUILDERS:

6.6.2.1 Display a positive attitude
6.6.2.2 Demonstrate knowledge of a position
6.6.2.3 Perform quality work
6.6.2.4 Adapt to changing situations and technology
6.6.2.5 Demonstrate capability for different positions
6.6.2.6 Participate in continuing education/training programs
6.6.2.7 Respect, accept, and work with ALL individuals in the workplace

UNIT 6: Employability Skills

SUBUNIT 6.7: Technology in the Workplace

COMPETENCY 6.7.1: Assess the impact of technology in the workplace

COMPETENCY BUILDERS:

6.7.1.1 Cite how past business/industry practices have influenced present business/industry processes
6.7.1.2 Investigate the use of technology in the workplace
6.7.1.3 Analyze how present skills can be applied to learning new technologies

COMPETENCY 6.7.2: Use a variety of technological applications

COMPETENCY BUILDERS:

6.7.2.1 Explore basic mathematical, scientific, computer, and technological principles
6.7.2.2 Use technology to accomplish assigned tasks
6.7.2.3 Create solutions to problems using technical means

UNIT 6: Employability Skills

SUBUNIT 6.8: Lifelong Learning

COMPETENCY 6.8.1: Apply lifelong learning to individual situations

COMPETENCY BUILDERS:

6.8.1.1 Define lifelong learning
6.8.1.2 Identify factors that cause the need for lifelong learning

* Advancing
** Futuring

COMPETENCY 6.8.2: Adapt to change

COMPETENCY BUILDERS:

6.8.2.1 Analyze the effects of change
6.8.2.2 Identify reasons why goals change
6.8.2.3 Describe the importance of flexibility when reevaluating goals
6.8.2.4 Evaluate the need for continuing education/training

UNIT 6: Employability Skills

SUBUNIT 6.9: Economic Education

COMPETENCY 6.9.1: Analyze global enterprise systems

COMPETENCY BUILDERS:

6.9.1.1 Identify characteristics of various enterprise systems
6.9.1.2 Examine the relationship between competition, risk, and profit
6.9.1.3 Illustrate how supply and demand influence price

COMPETENCY 6.9.2: Evaluate personal money management

COMPETENCY BUILDERS:

6.9.2.1 Describe the need for personal management records
6.9.2.2 Identify methods of taxation
6.9.2.3 Analyze how credit affects financial security
6.9.2.4 Compare types and methods of investments
6.9.2.5 Prepare a personal budget
6.9.2.6 Be an informed and responsible consumer
6.9.2.7 Analyze the effects of advertising on the consumer

* Advancing
** Futuring

UNIT 6: Employability Skills

SUBUNIT 6.10: Balancing Work and Family

COMPETENCY 6.10.1: Analyze the effects of family on work

COMPETENCY BUILDERS:

6.10.1.1 Recognize how family values, goals, and priorities are reflected in the workplace
6.10.1.2 Identify present and future family structures and responsibilities
6.10.1.3 Describe personal and family roles
6.10.1.4 Analyze concerns of working parent(s)
6.10.1.5 Examine how family responsibilities can conflict with work
6.10.1.6 Resolve family-related conflicts
6.10.1.7 Explain how to use support systems/community resources to help resolve family-related conflicts

COMPETENCY 6.10.2: Analyze the effects of work on family

COMPETENCY BUILDERS:

6.10.2.1 Identify responsibilities associated with paid and nonpaid work
6.10.2.2 Compare the advantages and disadvantages of multiple incomes
6.10.2.3 Examine how work can conflict with family responsibilities
6.10.2.4 Describe how work-related stress can affect families
6.10.2.5 Identify family support systems and resources

UNIT 6: Employability Skills

SUBUNIT 6.11: Citizenship in the Workplace

COMPETENCY 6.11.1: Exercise the rights and responsibilities of citizenship in the workplace

COMPETENCY BUILDERS:

6.11.1.1 Identify the basic rights and responsibilities of citizenship
6.11.1.2 Examine the history and contributions of all racial, ethnic, and cultural groups

* Advancing
** Futuring

COMPETENCY 6.11.2: Cooperate with others in the workplace

COMPETENCY BUILDERS:

6.11.2.1 Identify situations in which compromise is necessary
6.11.2.2 Examine how individuals from various backgrounds contribute to work-related situations
6.11.2.3 Demonstrate initiative to facilitate cooperation
6.11.2.4 Give and receive constructive criticism to enhance cooperation

UNIT 6: Employability Skills

SUBUNIT 6.12: Leadership

COMPETENCY 6.12.1: Evaluate leadership styles appropriate for the workplace

COMPETENCY BUILDERS:

6.12.1.1 Identify characteristics of effective leaders
6.12.1.2 Compare leadership styles
6.12.1.3 Demonstrate effective delegation skills
6.12.1.4 Identify opportunities to lead in the workplace

COMPETENCY 6.12.2: Demonstrate effective teamwork skills

COMPETENCY BUILDERS:

6.12.2.1 Identify the responsibilities of a valuable group member
6.12.2.2 Exhibit open-mindedness
6.12.2.3 Identify methods of involving each member of a team
6.12.2.4 Contribute to the efficiency and success of a group
6.12.2.5 Determine ways to motivate others

COMPETENCY 6.12.3: Utilize effective communication skills

COMPETENCY BUILDERS:

6.12.3.1 Demonstrate the importance of listening
6.12.3.2 Demonstrate assertive communication
6.12.3.3 Recognize the importance of verbal and nonverbal cues and messages
6.12.3.4 Analyze written material
6.12.3.5 Prepare written material
6.12.3.6 Give and receive feedback
6.12.3.7 Articulate thoughts
6.12.3.8 Use appropriate language

* Advancing
** Futuring

UNIT 6: Employability Skills

SUBUNIT 6.13: Entrepreneurship

COMPETENCY 6.13.1: Evaluate the role of small business in the economy

COMPETENCY BUILDERS:

6.13.1.1 Identify the benefits of small business to a community
6.13.1.2 Analyze opportunities for small business in a community

COMPETENCY 6.13.2: Examine considerations of starting a business

COMPETENCY BUILDERS:

6.13.2.1 Research a business idea
6.13.2.2 Compare various ways to become a small business owner
6.13.2.3 Investigate factors to consider in financing a new business
6.13.2.4 Evaluate entrepreneurship as a career option

* Advancing
** Futuring

Distributed by

Vocational Instructional Materials Laboratory
The Ohio State University
1900 Kenny Road
Columbus, Ohio 43210-1090

BEST COPY AVAILABLE